

*On the Habitat of Peristethidion prionocephalum, Dum.*

By Dr. A. B. MEYER.

M. A. Duméril described and figured in the year 1868 ('Nouv. Archives du Musée d'Hist. Nat. de Paris,' vol. iv. p. 115, pl. xxiii. figs. 1 & 2) a new species of *Peristethidion*, with the remark that it was "reçu de la mer des Indes, sans indication précise d'origine." Mr. Riedel, of Gorontalo, in Celebes, asks me to make known, in his name, that the specimen was sent to Paris by him, and that the exact habitat is Gorontalo, North Celebes.

*Anatomy of a Remarkable Type of the Group of Nemertians*

(Drepanophorus spectabilis). By M. A. F. MARION.

In his memoir on the Nemertians, M. de Quatrefages has indicated under the name of *Cerebratulus spectabilis* a curious species, to which he ascribes a proboscis furnished with a denticulated plate. The position and relations of this strange armature are unfortunately not exactly indicated by the French naturalist; and hence M. Intosh has recently expressed doubts as to the truth of the assertion, although Grube, in mentioning the occurrence of *Cerebratulus spectabilis* in the Adriatic, says, "Proboscide falcicula denticulata instructa." It is true that the Silesian zoologist has only given a few words to this Nemertian.

I have collected in the Gulf of Marseilles some worms of this species, and I can assert the correctness of M. de Quatrefage's description. I have moreover ascertained that Keferstein examined the same animal at Saint-Waast-la-Hogue. The *Borlasia splendida* of the "Untersuchungen über niedere Seethiere" is only a *Cerebratulus spectabilis* of which the armature of the proboscis was not recognized. Lastly, I must cite a recent memoir by M. Hubrecht, which I was unable to consult until my own researches were finished. M. Hubrecht observed some specimens of *Cerebratulus spectabilis* at Naples, and established for them the genus *Drepanophorus*. The anatomical part of this memoir is unfortunately incomplete; and I therefore hasten to publish the results that I have obtained.

The largest individual that I have examined was 68 millims. in length. I was able to understand the arrangement of the integuments by operating upon living individuals. I believe that there exists beneath the hypoderma a structureless basilar layer. The annular muscular fibres are very delicate, and differ completely from the longitudinal bundles; the latter, in transverse section, have the pennate appearance indicated by Schneider and Claparède in the musculature of the earthworms and of some Chætopod Annelides.

The vascular apparatus of this Nemertian presents the surprising peculiarity of containing elliptical globules, slightly flattened, and of a red colour identical with that of the blood-globules of man. Their longest diameter is 0.01 millim. In their centre a darker portion is seen, although it is not possible to distinguish the elements

of a true cell. If we press down a part of the body, these corpuscles accumulate in certain regions of the circulatory system, and form masses of an intense red colour. The oscillations of the globules also may be followed by observing a young animal by transmitted light. The corpuscles are set in motion by a colourless liquid, in which they float without any constant direction. There is a median dorsal vessel; and two lateral vessels are situated on the ventral face. Beneath the nervous ganglia the dorsal vessel bifurcates and anastomoses with the two lateral trunks, which rise up, follow the posterior margin of the superior ganglia, and continue on to form the cephalic loop. The dorsal canal gives origin to regularly spaced transverse loops. Each of these branches is continued to the flank of the animal, then bends towards the ventral face and opens into the lateral vessel. There consequently exist numerous capillary ramifications, which are exceptional in Nemertians, but recall to mind the arrangement indicated by M. Blanchard in *Cerebratulus liguricus*.

The proboscis is greatly developed; and the animal usually projects it at the least contact. The papillæ of the extraversile region are covered with small, ovoid, pedunculate bodies. The bulb seems to be relatively narrow; its armature can be recognized only with great difficulty. It consists of a recurved, granular, yellowish plate, representing the handle of the style of the ordinary armed Nemertians, and borne upon a hyaline mass representing the "muscular setting" of the Ommatopleans. Several little points are inserted upon the keel of this plate, which is furnished with two bundles of special muscles. These points are in all respects identical with those of the style of the *Enopla*. I have counted from nine to twenty upon a single plate; the number varies with the age of the individuals. Lastly, on each side of the bulb there are eight or ten styliigerous vesicles, containing four or five points furnished with a basal ring, and similar to those which arm the central plate. It is interesting to remark that this multiplicity of the styliigerous vesicles is in agreement with the great number of small ducts belonging to the principal armature.

One cannot hesitate to admit that the structure of this proboscis necessitates the establishment of a distinct genus in the group of armed Nemertians. I adopt the name of *Drepanophorus* proposed by M. Hubrecht. This Nemertian certainly cannot remain among the unarmed *Cerebratuli*; but I cannot accept the different species adopted by the Dutch naturalist. Among the worms found at Marseilles, notwithstanding certain differences of coloration dependent on age, I only see one well-characterized form for which it is desirable to retain the specific name given by M. de Quatrefages. The geographical range of *Drepanophorus*, however, seems to be pretty large: it is not uncommon in Sicily and in the Bay of Naples; Grube has collected it in the Adriatic; it inhabits the deep coralligenous regions of the Gulf of Marseilles; and its existence in the ocean is placed beyond doubt by Kefersteins figures.—*Comptes Rendus*, April 5, 1875, p. 893.